

AN: PAT 2002-068267  
TI: High pressure expansion section of steam turbine has rotatably located shaft enclosed in housing and is provided with inflow for feed of fresh steam at specific temperature and pressure from steam producer  
PN: **EP1154123-A1**  
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AB: NOVELTY - The high pressure expansion section (11) of a steam turbine (10) has a rotatably located shaft (13) enclosed in a housing. It is provided with an inflow for feed of fresh steam (m1) at a specific temperature and pressure from a steam producer (15). A further feed for cool steam (m2) is provided, which is taken from the steam producer and has a lower temperature and a higher pressure than the fresh steam. DETAILED DESCRIPTION - The feed issues into a ring groove in the housing encompassing the shaft. The shaft is formed as a piston in the area of the further feed, which compensates forces, which act in an axial direction on the blades of the shaft. The inflows for the fresh steam and the further feed for the cool steam are arranged closely next to each other.; USE - For cooling a shaft in a high pressure expansion section of a steam turbine. ADVANTAGE - Cooling of a shaft of a high pressure turbine is made possible, particularly of a piston for thrust compensation. DESCRIPTION OF DRAWING(S) - The figure presents a schematic view of the steam turbine installation steam turbine 10 high pressure expansion section 11 shaft 13 steam producer 15 fresh steam m1 cool steam m2  
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